

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2005 (06.05.2005)

PCT

(10) International Publication Number
WO 2005/040017 A2

- (51) International Patent Classification⁷: **B65H**
- (21) International Application Number:
PCT/US2004/035201
- (22) International Filing Date: 22 October 2004 (22.10.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10/691,447 22 October 2003 (22.10.2003) US
10/692,304 23 October 2003 (23.10.2003) US
- (71) Applicant (for all designated States except US): **COMPOSITE TECHNOLOGY CORPORATION** [US/US];
2026 McGaw Ave., Irvine, CA 92614 (US).

BRYANT, David [US/US]; 1145 Saling Way, Laguna Beach, CA 92651 (US).

(74) Agent: **DE LA TORRE, Kelly**; The McIntosh Group, 8000 East Prentice Ave., Suite B-6, Greenwood Village, CO 80111 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

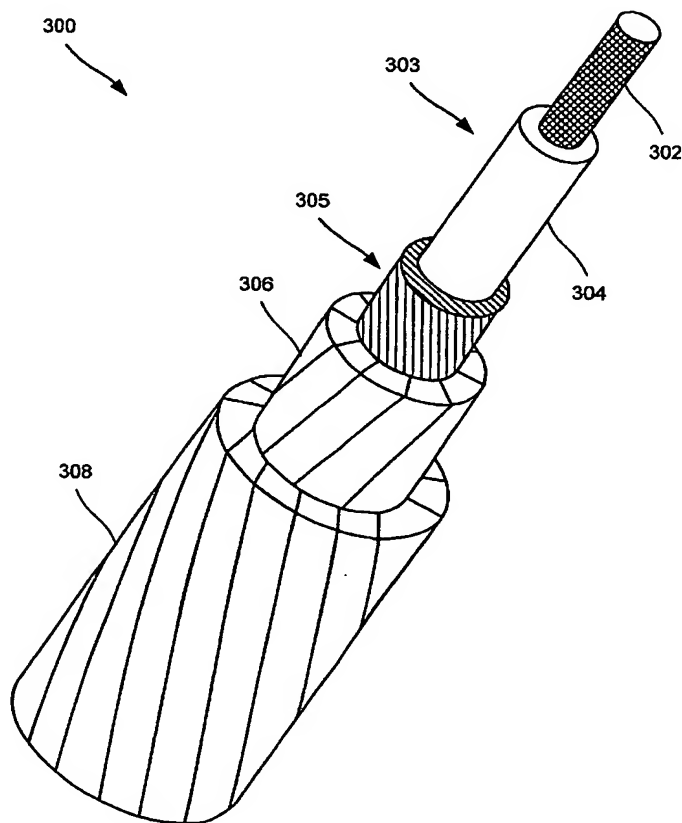
(72) Inventors; and

(75) Inventors/Applicants (for US only): **HIEL, Clement** [US/US]; 32526 Seahill Drive, Rancho Palos Verdes, CA 90275 (US). **KORZENIOWSKI, George** [US/US]; 5140 Alhama Drive, Woodland Hills, CA 91364 (US).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: **ALUMINUM CONDUCTOR COMPOSITE CORE REINFORCED CABLE AND METHOD OF MANUFACTURE**



(57) Abstract: This invention relates to an aluminum conductor composite core reinforced cable (ACCC) and method of manufacture. An ACCC cable (300) has a composite core surrounded by an outer film (305) and at least one layer of aluminum conductor (306). The composite core (303) comprises a plurality of fibers from at least one fiber type in one or more matrix materials. According to the invention, unique processing techniques such as a B-Staging and / or film-coating techniques can be used to increase production rates from a few feet per minute to sixty or more feet per minute.

WO 2005/040017 A2



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *without international search report and to be republished upon receipt of that report*